UNITED STATES SIGNAL SERVICE

MONTHLY WEATHER REVIEW.

VOL. XVIII. WASHINGTON CITY, MAY, 1890. No. 5.

INTRODUCTION.

This REVIEW is based on reports for May, 1890, from 2,249 regular and voluntary observers. These reports are classified as follows: 166 reports from Signal Service stations; 126 reports from United States Army post surgeons; 5 reports of rainfall observations of the United States Geological Survey in New Mexico; 1,395 monthly reports from state weather service and voluntary observers; 26 reports from Canadian stations; 174 reports through the Central Pacific Railway Company; 357 marine reports through the co-operation of the Hydrographic Office, Navy Department; marine reports through the "New York Herald Weather Service;" monthly weather reports from the local weather services of Alabama, Arkansas, Colorado, Illinois, Indiana, The Iowa Weather and Crop Service, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Meteorological Report of the Missouri State Board of Agriculture, Nebraska, Nevada, New England, New Jersey, New York, North Carolina, North and South Dakota, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, and Texas, and international simultaneous observations. Trustworthy newspaper extracts and special reports have also been used.

CHARACTERISTICS OF THE WEATHER FOR MAY, 1890.

The flood along the lower Mississippi river subsided gradually, and much land in the river parishes of Louisiana which was inundated on the 1st was under cultivation at the close of the month. A rise in the Red River caused the overflow of a considerable extent of country in northwestern Louisiana and southwestern Arkansas in the early part of the month. There was a marked rise in the Arkansas River at Fort Smith, Ark., on the 20th and 21st, and at Little Rock, Ark., from the 23d to 25th. At the close of the month the Mississippi River was 0.4 foot above the danger-line at Vicksburg, Miss., and 0.8 foot above the danger-line at New Orleans, La.; most of the country from Bayou Sara to the mouth of the Red River, Pointe Coupee Parish, La., was under water; from the mouth of the Red River to within twelve miles of Monroe, Ouachita Parish, La., a distance of over two hundred miles, the country had been inundated for nearly three months; and from the Red River up the Black River for a distance of eighty miles much of the land was under water. Damaging floods were reported in Ontario, Canada, on the 5th; along the Brazos River, Texas, on the 6th; in the vicinity of Camp Peña Colorado, Tex., on the 15th; in central New York and northeastern Pennsylvania about the 20th; along the Willamette River, Oregon, from the 10th to 20th; along the upper Potomac river about the 26th; in the Island of Cuba about the 29th; and in Fresno and Tulare counties, California, at the close of the month. Floods were also reported along the Carson River, Nevada, and in Scott county, Iowa.

The month was cooler than usual in the central valleys, the Lake region, the Gulf States, and over the eastern part of the country, save at Atlantic coast stations north of the thirty-third parallel. In the plateau regions and adjoining parts of the eastern slope of the Rocky Mountains, and on the Pacific coast north of the thirty-fifth parallel the month was warmer than the average May. The greatest departures below the average temperature occurred in the north-central part of the country, where they exceeded 6°, and the greatest departures above the average temperature occurred at stations in the middle and southern plateau regions, where they were more than 3°. At Keeler, Cal., Winnemucca, Nev., and Albany, Oregon, the mean temperature was higher, and at Marquette, Mich., and Saint Vincent, Minn., it was lower than previously reported for May. The highest maximum temperature reported was 108°, at Florence and Fort McDowell, Ariz.; and at Springfield, Ill., Rapid City, S. Dak., Colorado Springs, Colo., and Fort Stanton, N. Mex., the maximum temperature was the highest ever reported for May. The lowest minimum temperature reported was 5°, at Fort D. A. Russell, Wyo., and the temperature fell to 11° at Breckenridge, Colo. At Atlanta, Ga., Chattanooga and Nashville, Tenn., Sandusky, Ohio, Grand Haven, Mich., Moorhead, Minn., La Crosse, Wis., Colorado Springs, Colo., and Concordia, Kans., the minimum temperature was as low or lower than previously reported for May. Killing frost occurred in South Dakota on the 1st, in upper Michigan on the 3d and 11th, in Ohio on the 2d, 7th, 8th, and 11th, in Nebraska on the 4th and 5th, in northeastern Iowa on the 6th, in Missouri on the 5th, 6th, and 7th, in Kansas on the 7th, in northern Alabama on the 8th, in New Jersey on the 9th, in lower Michigan on the 11th, in North Dakota on the 12th and 15th, in Missouri on the 14th and 16th, in Indian Territory and Kansas on the 16th, and in Oregon on the 21st, 28th, 29th, and 30th. In Ohio killing frost was about three weeks later, in Iowa about one week later, in Alabama about seven weeks later, in New Jersey three to four weeks later, in lower Michigan about two weeks later, in North Dakota seasonable, in Missouri and Indian Territory about one month later, in Kansas about three weeks later, and in Oregon about two weeks later than the average date of last killing frost in the respective states.

The heaviest precipitation occurred on the east-central coast of Florida, where it exceeded fifteen inches, and monthly precipitation exceeding ten inches was reported in central Texas, east-central and northwestern Pennsylvania, central and southeastern Louisiana, northwestern South Carolina, central Alabama, central Georgia, south-central Indiana, and central and south-central Maine. Over a greater part of Arizona, and in southeastern California, southern Nevada, southwestern Colorado, eastern Utah, southwestern New Mexico, and in extreme western Texas no precipitation was reported. The precipita-